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ABSTRACT

This booklet is designed to provide strategies for teaching students with severe disabilities in inclusive settings. Chapters address initial student-specific steps in planning for effective inclusive education, including developing the Individualized Education Program (IEP), targeting IEP objectives in the general education setting, and planning for necessary adaptations and supports. Different approaches to instruction and their application to inclusion of student with severe disabilities are also described, including large-group instruction, small-group instruction, cooperative learning groups, and peer partners. Individualized teaching strategies are provided, such as instructional prompts. Guidelines to consider when using instructional prompts are given, as well as explanations for using increasing-assistance, decreasing-assistance, and time delay approaches. Information is also provided on reinforcers and corrective feedback, including guidelines for the effective use of reinforcers and sample methods for corrective feedback. Documenting student progress, assigning grades, and evaluating an instructional plan are also covered. A case study of a third-grader with Down syndrome is provided to illustrate the successful inclusion of a student with severe disabilities. Sample classroom participation plans and checklists for planning for inclusion, considering adaptations and modifications, and evaluating student outcomes are provided. (Contains 53 references.) (CR)

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Teaching Students with Severe Disabilities in Inclusive Settings

Mary Ann Demchak

EC 306 202

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Research Foundations

"Evaluating the Effects of Placement of Students With Severe Disabilities in General Education Versus Special Classes"
by P. Hunt, J. Farron-Davis, S. Beckstead, D. Curtis, & J. Goetz

"Promoting the Inclusion of Young Children With Disabilities in the Primary Grades"
by C. L. Salisbury, M. Mangino, M. Petrigala, B. Kamorath, S. Strieker, & M. M. Palombaro

"Efficacy of Constant Time Delay Implemented by Peer Tutors in General Education Classrooms"
by M. Wolery, M. G. Werts, E. D. Snyder, & V. S. Caldwell

"Achievement by All Students Within the Context of Cooperative Learning Groups"
by P. Hunt, D. Staub, M. Alwell, & L. Goetz

"Promoting Independence in Integrated Classrooms by Teaching Aides to Use Activity Schedules and Decreased Prompts"
by L. J. Half, L. E. McClannahan, & P. J. Krantz

"Strategies That Promote Social Relations Among Elementary Students With and Without Severe Disabilities in Inclusive Schools"
by C. L. Salisbury, C. Gallucci, M. M. Palombaro, & C. A. Peck

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Teaching Students With Severe Disabilities in Inclusive Settings

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American Association on Mental Retardation

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CHAPTER ONE

Introduction

Too often teachers assume that the main outcome of inclusive education is the physical inclusion of students.

Jake is a 9-year-old third grader. He likes to play with his friends, to draw and paint, to listen to music on headphones, and to play with Lego building blocks. Like any third grader, he loves recess; he likes to play on the swings and slide. However, Jake is also different from other third graders. He is identified as being moderately mentally retarded and as having Down syndrome. His verbal communication skills are limited and he is difficult to understand. In addition, Jake has a seizure disorder that is only partially controlled by medication.

Not long ago, Jake would have received his education in a segregated setting, such as a special school for students with disabilities or in a self-contained classroom in a regular school. But educational practice has moved toward inclusion: educating students with disabilities in typical classrooms located in their neighborhood schools with typically developing peers of the same chronological age.

Students with severe disabilities who were fully included were significantly more actively engaged in the daily activities of the classroom and more likely to be interacting with other students than were students with severe disabilities receiving their education in special classes.

— Hunt, Farron-Davis, Beckstead, Curtis, & Goetz (1994)

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Inclusive educational practices are recommended because they benefit students both with and without disabilities. Students with disabilities display benefits including increased interactions with peers, increased communication and social skills, and increased inclusion in future environments. Students without disabilities benefit in that they learn to accept diversity and demonstrate more positive attitudes toward people with disabilities. It is important to understand that there is a research basis for recommending the typical classroom as the educational setting for students with severe disabilities. The bibliography includes selected references (marked with * asterisk) discussing benefits of inclusive education.

Effective inclusive education must be founded on an understanding that special education is a service or support and not a place. That is, special education, as a service or support, goes to the student in the general-education setting. The student does not leave the classroom to go to a special-education "place." In the past special education was often seen as a "magical" place where "specialists" worked "miracles" with students with disabilities. The perception was that these educational "marvels" had to occur in a specialized, restricted setting such as a special-education classroom. More recently, special education is not viewed as a magical place; it is seen as a support that should follow the student. That is, specialized services (e.g., teaching strategies, curriculum modifications, and other individualized strategies) occur in the general-education setting to meet the student's educational needs in that classroom.

But for special education to be an effective support, numerous planning decisions must be addressed. At least 10 types of decisions must be made.

1. Student-specific planning, initially part of the Individualized Educational Plan (IEP) process, is central to inclusive education. Even after the IEP is formulated, student-specific planning is needed to continue to assure that appropriate activities or adaptations are developed to help the student meet IEP objectives.
2. I recommend that you develop a school-wide planning committee, or task force, to discuss school-wide issues and concerns. This would include representation of all involved parties (e.g., special-education and general-education teachers, building administration, parents).
3. Family involvement is essential from the onset, for the benefit of their specific child and the school-wide program. The educational team must determine strategies to involve the family in meaningful ways.
4. Collaboration among general-education teachers, special-education teachers, family members, related-services personnel, and others helps ensure that the student's educational needs are met in the general-education setting.
5. Related-services personnel may be particularly interested in generating strategies to address the student's related-services needs in the general-education classroom (i.e., integrated therapy).
6. It is also important to plan for effective use of natural supports, including paraprofessionals assigned to the entire class, parent volunteers, peers, high-school students acting as teacher assistants, and university practicum students.
7. Peer social interactions should be encouraged for an additional reason—to help develop friendships.

8. You'll want to plan ways to incorporate diversity awareness, including disability awareness, into the curriculum for all students.
9. A problem-solving process should be in place to address unanticipated issues that may arise.
10. Finally, students change classrooms each year as they progress from grade to grade, and it is crucial to plan for these transitions.

These critical types of planning processes are listed in Table 1. Although it is beyond the scope of this book to address all of these planning decisions, these areas must be addressed if the educational team hopes to be effective. Note that much of this ongoing planning will occur throughout the school year; it is *not* necessary for all planning to be completed prior to a student's placement in a general-education classroom.

Table 1

Types of Planning to Be Completed for Effective Inclusive Education

1. Addressing student-specific needs
2. Developing school-wide task force
3. Involving families in meaningful ways
4. Collaborating: methods and time
5. Addressing related-services needs
6. Using natural supports
7. Facilitating social interactions with peers
8. Including diversity awareness within the curriculum
9. Problem solving
10. Preparing for grade-to-grade transitions

The Purpose of This Book

When students with severe disabilities are placed in a general-education classroom, the IEP goals and objectives of these students must be meaningfully targeted in the inclusive setting. The purpose of this book is to discuss strategies for *teaching* students with severe disabilities in inclusive settings. Too often teachers assume that the main outcome of inclusive education is the physical inclusion of students with disabilities in the typical education setting. Although being present is a necessary first step, it is only the beginning. Subsequently the student's educational team must work together to ensure that the student's educational objectives are achieved. That is, the student must be effectively taught in the typical classroom.

In chapter 2 I will discuss initial student-specific steps in planning for inclusive education. These steps include developing the IEP, targeting IEP objectives in the general-education setting, and planning for necessary adaptations and supports. In chapter 3 I will discuss teaching students with severe disabilities in inclusive settings. This discussion will include (a) how to involve students in large- and small-group activities, cooperative learning groups, and peer partnering and (b) how to provide individualized instruction. I will also discuss strategies for monitoring student progress. Finally, chapter 4 includes a case study of the successful inclusion of a student with severe disabilities. Although this book can benefit general-education teachers, it is intended primarily for use by special-education teachers in their collaboration with general-education teachers. The strategies discussed in this book are relevant for all grade levels as well as for any level of inclusion (i.e., partial inclusion to 100% inclusion).

CHAPTER TWO

Preliminary Planning for Successful Inclusion

Even typically developing children benefit from adaptations. It is even more important that appropriate modifications be made for students with severe disabilities.

This chapter provides the initial steps to follow and factors to consider when conducting student-specific planning for successful inclusion. An overview of this process is provided in Table 2. Self-checks interspersed throughout this book are intended to help you implement this process in your school.

The IEP Process

The move toward inclusive education has not eliminated the mandates of P.L. 101-476 (formerly P.L. 94-142), the Individuals with Disabilities Education Act (IDEA). It is still necessary to develop an Individualized Educational Plan (IEP) for each student with a disability. The IEP must include a statement of current performance levels, long-term goals and short-term objectives with criteria for evaluation at least annually, date of initiation of services and anticipated duration, special-education services to be provided, and the amount of time in regular education. Additionally, when students reach the age of 16, the IEP must include a statement of transition services to be provided. The IEP team is comprised of the teacher, parent, local education agency representative (e.g., principal, another special-education teacher), and the student. In planning for inclusive education, it is essential that *both* the student's special-education teacher and current or possible future general-

education teacher(s) be involved in the process.

Student and family involvement in the IEP process cannot be overemphasized. Student involvement in the transition aspect of the IEP is mandated beginning at age 16. But that is too little and too late. The student should be involved in all aspects of the process discussed above. Similarly, the family should be involved in the entire process. The student and family can (a) provide information regarding strengths and needs to be included in the current performance levels, (b) help develop goals and objectives, (c) help specify meaningful criteria, and (d) discuss their preferences and perceptions regarding the special-education services needed.

Table 2

Planning for Inclusive Education for Students With Severe Disabilities

1. Follow the specified IEP process.
2. Develop IEP goals and objectives that meet the student's needs and are appropriate for an inclusive setting.
3. Based on the IEP objectives, specify the educational and related services needed for the student to receive an appropriate education.
4. Complete an activity matrix meshing the student's IEP objectives with the general-classroom schedule.
5. Specify the adaptations, modifications, and supports needed to facilitate the student's meaningful inclusion in the typical classroom.

The IEP process should comply with the following general steps.

Develop Appropriate IEP Objectives

Current performance levels should be reviewed. This leads to the development of student-specific goals and objectives based on student needs. The manner in which IEP objectives are written can influence decisions regarding educational services and placement. Unfortunately, too many teachers working with students with severe disabilities write IEP objectives that do not *seem* transferrable to an inclusive setting. The following objectives, for example, are written with a focus on developmental skills targeted in isolation:

Goal: Improve Motor Skills

1. Jake will trace circles to teacher satisfaction.
2. Jake will string beads matching a pattern on a card with 80% accuracy.

Similarly, IEP objectives can target critical skills (e.g., communication, life skills, social skills) in a manner that discourages inclusive educational placements. For example:

Goal: Increase Independent Life Skills

1. Jake will independently make his lunch.
2. Jake will vacuum the teacher's lounge with minimal verbal prompts.

Although these specific objectives may be relevant for the student, they can make it very difficult for the educational team to endorse an inclusive placement. In some instances, it may be appropriate to specify certain objectives that the parents will address in the home setting (e.g., vacuuming). In other instances objectives can be rewritten to be appropriate for inclusive settings. For example, the "making lunch" objective could be changed to making a Friday afternoon snack with

peers—to reward good work during the week (especially relevant for elementary students).

When IEP objectives are rewritten, it can be easier for the team to reach the conclusion that an inclusive setting is appropriate for a particular student with a disability.

Typically, a student with severe disabilities will have multiple educational needs to be addressed. It is important to target priority skill-needs that will be addressed through the IEP for the current school year. The educational team, including parents, works together to identify areas of current critical concern. The team should ask whether or not targeting this particular skill will result in meaningful participation in daily activities. If the student masters the skill, will the student have increased involvement and control in routines within the student's setting(s)? Be sure the family's priority concerns are included in the IEP objectives. Note that additional lower-priority educational needs will likely be addressed in subsequent school years. It is not necessary to identify all areas within one school year.

Take your selected critical skill areas and turn them into IEP goals and objectives. The IEP objectives should be (a) activity-based, target interactions with nondisabled peers and (b) detail-specific, observable, and measurable behaviors to be learned. The IEP goals and objectives in Table 3, written for students of various ages, are examples of goals and objectives that are oriented toward inclusive educational placements.

Specify Services Needed

Formulated goals and objectives should lead to a discussion of (a) the special-education and related services needed to meet these needs and (b) the educational placement in which these needs can be met.

Table 3

Sample IEP Objectives

Objective 1: Jacob will use his augmentative communication device to gain the attention of a peer and to ask the peer to help him with his classroom job in five out of five consecutive trials.

Objective 2: Erin will use an object schedule to identify the next activity, get the necessary materials, and initiate the activity for 9 out of 10 consecutive opportunities.

Objective 3: Rob will participate in leisure activities by pressing a plate switch with his right fist to turn on tape recorded music for circle time and group activities in 9 out of 10 opportunities.

Objective 4: Anna will share materials with her peers at free time by handing the material to the requesting peer in 8 out of 10 opportunities.

Objective 5: Seth will maintain a supported sitting position on the carpeted floor in the reading area for 10 minutes.

Objective 6: Janice will press a jelly bean switch, positioned behind her head on the wheelchair headrest, to turn on her tape player to play, for the whole class, the taped responses from group activities, in 9 out of 10 opportunities.

Objective 7: Upon arrival to class, Paula will independently greet at least one peer and ask that peer what he or she did last night in four out of five consecutive opportunities.

Objective 8: Carl will walk to class independently and arrive prior to the late bell in four out of five consecutive opportunities.

Common related services included in the IEP are occupational therapy, physical therapy, speech-language therapy, transportation, and school health services (e.g., school nurse administering medicines). These related services, as well as others specified within P.L. 101-476, are intended to help a student benefit from special education. The IEP team will determine those services that are needed for the student.

Compared to students with severe disabilities in special classes, students with severe disabilities who were fully included in general-education classes had IEPs that were of a better quality.

—Hunt, Farron-Davis, Beckstead, Curtis, & Goetz (1994)

Table 4

Self-Check: Planning for Inclusion Through the IEP Process

❑ YES ❑ NO 1. Did you hold the IEP meeting with all relevant people in attendance (i.e., parents, teachers, administrator, related-services personnel, student)?

❑ YES ❑ NO 2. Did you begin the process by discussing the student's current performance levels as determined through a meaningful assessment?

❑ YES ❑ NO 3. As a team did you develop specific IEP objectives that are activity based, that emphasize interactions with peers without disabilities, and that will result in meaningful participation in daily activities?

❑ YES ❑ NO 4. Did you specify the educational and related services needed for the student to receive an appropriate education?

❑ YES ❑ NO 5. Did you further specify any needed adaptations, supports, modifications, etc., needed to maximize the student's participation with peers without disabilities and to minimize any disruptions?

OUTCOMES:

1. An appropriate IEP is developed with meaningful objectives.
2. All involved in the process develop the IEP in a collaborative manner.
3. Education occurs in the least restrictive environment.
4. The preliminary supports needed for an effective education in the least restrictive environment are identified.

Self-Check

At this point you should have developed a comprehensive IEP for the student. Table 4 provides a checklist of team planning for inclusion through the IEP process. Formulated goals and objectives lead to placement in the least restrictive environment in which an appropriate education can be provided. At this step, identify preliminary supports (e.g., special-education and related services) needed to facilitate effective inclusive education. Additional supports and adaptations will be delineated as needed for meaningful participation in the typical classroom schedule.

Target Objectives Within the Classroom Schedule

Here I lay out one specific strategy for helping the team determine how a student's educational needs can be met in the general-education classroom. It involves completing a matrix meshing the student's needs with the classroom schedule. The steps for completing such an instructional matrix are shown in Table 5 and a sample, completed matrix is shown in Figure 1.

Collaborative team planning to address each student's IEP goals and objectives within the class schedule leads to shared responsibility for the student as well as to more meaningful participation in class activities for that student.

—Salisbury, Mangino, Petrigala, Rainforth, Syryca, & Palombaro (1994)

After writing the student's IEP objectives and obtaining the general-education classroom schedule, the team reviews the two to determine where within the schedule the student's IEP objectives can be met. The team also continues to discuss what supports and adaptations may be needed to facilitate the student's success in the general-education setting. For example, the student may require extra assistance from another person. It may be appropriate to determine how to use natural supports such as peers. In some cases, the activity or materials may need to be modified.

In completing the matrix, it may become evident that a particular time of day has limited or no benefit in terms of addressing the objectives targeted in the IEP. This time of day could be used

Table 5

Steps for Developing an Instructional Matrix

Step 1: List the activities in the daily general-education classroom schedule and the approximate amount of time devoted to each activity.

Step 2: List the student's IEP objectives.

Step 3: Use a grid showing the classroom schedule on one axis and the student's IEP objectives on the other axis.

Step 4: On the grid place an "x" for each activity in which one of the student's IEP objectives can be addressed. Each objective will likely be addressed in multiple activities. Many activities can target more than one objective.

Step 5: Identify potential supports or adaptations that may be needed for meaningful participation in classroom activities.

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for the student to receive alternate instruction (e.g., community-based instruction for older students) as specified in the IEP if these alternate areas have been identified as priority areas for instruction. (Although some authors argue that no student should ever leave the general-education setting for any activity, I support the premise that it is appropriate for the educational team, with parental input, to include activities such as community-based instruction or vocational training within the IEP. Students with disabilities would leave the school site just as some secondary students without disabilities leave the school site for work study or job experiences.)

Additional tasks that are *not* student goals or objectives but that are related to student needs should be incorporated into the matrix. Many students with severe disabilities will have management needs (e.g., diapers that must be changed, administration of medication) that must be incorporated into the classroom schedule. Within any setting it is a basic right of the student to have these needs addressed in a manner that respects individual dignity and right to privacy. The educational team should incorporate these tasks into the student's individual schedule while addressing privacy and dignity concerns (e.g., a private room for changing).

Specify Adaptations and Modifications

Completing an instructional matrix allows the educational team to plan for the specific adaptations and modifications that a particular student will need to be successful in the inclusive setting. Students with disabilities can and should participate in general-education activities in numerous ways to varying degrees. But it is not necessary for all children in the classroom to be doing the same thing at the same time in the same way. Even typically developing children frequently benefit from adaptations of various types. And it is even more important that appropriate modifications be made for students with severe disabilities.

In determining needed adaptations, various constraints may need to be overcome as you plan and implement inclusion. Challenges of the curriculum (e.g., content, methods of instruction) need to be addressed so that the student's educational needs are met. Physical barriers (e.g., crowded classrooms) may need to be modified to address accessibility issues. Teachers and students may need to be educated regarding disability awareness and strategies for interacting with the new student.

The next section addresses modifications that may be needed in curriculum and in teaching strategies to facilitate appropriate and effective instruction of students with severe disabilities who are in inclusive classrooms.

As you work with the instructional matrix previously described, you may well see where adaptations are needed within the classroom routines and activities. Completing the matrix is only the beginning of collaboration and cooperations between the special and general educators; together you must determine how IEP objectives will be taught within the context of the ongoing class activities. By whom? What specific adaptations are needed?

After initial matrix-centered planning, further adaptations will need to be addressed. Sometimes daily planning may occur to ensure that the student is actively engaged in all activities. As the general-education teacher becomes more familiar with the student and his or her needs, formal planning between the general and special educators will likely be needed less frequently. Yet you will need to maintain regularly scheduled planning sessions throughout the school year to

Figure 1

Sample Instructional Matrix for a Student With a Severe Disability

Student: Jake Grade: 3 Date 3/18

	CLASS ACTIVITIES	Opening	Daily Journal	Reading Groups	Reading Centers	Recess	Computers	Writing	Lunch	Recess	Math	Math Centers	Health
	APPROXIMATE TIME	10 min.	10 min.	30 min.	30 min.	15 min.	30 min.	30 min.	30 min.	30 min.	20 min.	30 min.	20 min.
IEP OBJECTIVES	Line up after recess					X				X			
	Turn-taking with peers	X			X	X				X		X	
	Classroom jobs with peers	X	X		X		X	X			X	X	X
	Write name on assignments		X(IP)		X(IP)		X(IP)	X(IP)			X(IP)	X(IP)	X(IP)
	Initial sounds of words	X	X	X	X		X	X				X	X
	Read specific sight words	X	X	X(IP)	X(IP)		X(IP)	X(IP)				X	X(IP)
	Read #s through 30	X(IP)	X(IP)	X	X		X	X			X(IP)	X(IP)	X
	Count #s through 30	X				X				X	X	X	
	Tell time to hour	X(IP)	X	X	X(IP)	X	X(IP)	X	X(IP)	X	X(IP)	X	X(IP)
	Follow class schedule	X(IP)	X(IP)	X(IP)	X(IP)	X(IP)	X(IP)	X(IP)	X(IP)	X(IP)	X(IP)	X(IP)	X(IP)
	See nurse for medication								X				

X — objective can be addressed in this activity

IP — Individualized instructional plan developed for use

ensure that appropriate adaptations are developed and implemented.

Various adaptations can facilitate inclusion. Here I will address three major types: (a) individualized adaptations such as providing personal assistance, modifying materials and/or the environment, and using assistive technology; and adaptations to the actual curriculum content through (b) multilevel teaching and (c) curriculum overlapping. In many cases several types of adaptations occur simultaneously. For example, multilevel teaching could occur even as individualized adaptations are being made for a particular student.

In some cases the student may engage in an activity through partial participation, a principle first described by Baumgart and her colleagues in 1982. Partial participation encourages a student to participate as much as possible in the activity, even if the student cannot complete all aspects of it. This view acknowledges that even partial participation in an activity benefits the student. Partial participation can underlie any of the following adaptations.

Regardless of the type, adaptations are intended to facilitate the student's participation in ongoing class activities in meaningful ways. Adaptations should be (a) specific to the student's needs and particular disability, (b) specific to the activity and setting, and (c) minimize differences between the student with severe disabilities and peers.

Individualized Adaptations

Although it is not possible to discuss all potential individualized adaptations that could be made, this section will highlight key categories within which adaptations could occur. It may be necessary to involve nonteaching team members (e.g., physical or occupational therapists, assistive technology specialists) in planning and implementing adaptations.

Even students with the most severe disabilities can be provided with supports that encourage active and meaningful participation in daily activities as well as help others in their settings to see them as contributing members of the activities.

—Ferguson & Baumgart (1991)

Personal Assistance

In some situations the team will determine that the adaptation needed involves assistance from someone. Sometimes professionals or families ask for additional paid paraprofessional support. Hiring a paid paraprofessional should not be a routine decision for several reasons. First, most school districts have finite resources, and hiring numerous paraprofessionals is unrealistic. Second, paraprofessionals can quickly experience job burnout if assigned to work exclusively with one student. Finally, and perhaps most important, assigning a paraprofessional to one student could be detrimental to that student in several ways. A "personal" paraprofessional can result in the student becoming unnecessarily dependent upon that person and can interfere with skill generalization as related to working with others. Assigning a paraprofessional in such a manner can also interfere with peer interactions and the development of social relationships and friendships.

Using natural supports can address some of the problems related to "personal" paraprofessionals. Natural supports—resources that are readily available in the general-education setting (e.g., peers)—do not involve any cost to the district. When peers are used as supports, it should be within the context of all students helping each other. One or two students should not always be at the receiving end of assisting relationships, never having the opportunity to

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provide assistance to others. It is important to train students without disabilities in how to interact with peers who are severely disabled. (Peer partnering is further discussed in chapter 3.)

Other potential natural supports include parent volunteers, high-school students acting as teacher assistants, and university practicum students. As with peers, these students or adults will likely need informal training to provide assistance in the environment.

Modifying Materials and/or Environment

Adaptations can be made to materials currently used in the student's general-education setting. One type of adaptation to materials allows the student with severe disabilities to have greater receptive understanding of the activity. These adaptations to materials encourage meaningful participation. Some modifications may be very simple. For example, worksheets can be modified by reducing the number of items that must be completed and/or simplifying the directions. Sometimes the modifications need to be more involved. For example, facilitating participation in a reading activity in which other students would rely only on the written word might call for taped books or the use of words paired with photos, pictures, or objects. For students with multiple disabilities that include sensory impairments, meaningful participation might call for the incorporation of texture or tactile materials.

Adaptations can also be made in the way the student responds when participating in various activities. Instead of responding verbally or in writing, the student could indicate response through the use of tape players, drawing, or selecting pictures or photos. Or the student might indicate comprehension within an activity by responding to yes/no questions while other students are expected to respond in a narrative fashion. Students with severe disabilities are often better able to participate in meaningful ways when they are involved in small-group activities, such as cooperative learning groups, or with peer partners than in traditional lecture activities or independent seat work. (Instructional arrangements such as these are discussed in chapter 3.) The manner in which the student responds is limited only by the creativity of the educational team.

It is also possible to modify the environmental setting. For example, the student with visual impairments may need to have modified lighting in the classroom. A student with a hearing impairment may need an assistive listening device. It may be necessary to change a student's physical position through the use of corner chairs, mobile standers, wedges, bolsters, sidelyers, or other adaptive equipment. Such adaptive positioning equipment allows the student to participate in the activity and to interact with peers.

Any such device should allow the student to be in a position similar to that of the peers. If a group of students is completing an activity on the floor, it could be appropriate for the student to be positioned on a wedge or in a sidelyer. However, if students are seated at tables, it would be more appropriate for the student with severe disabilities to use an adapted chair that allows him or her also to sit at a table.

Remember that the purpose of adaptive equipment is to facilitate participation in educational activities; it is not simply to position a student in a specific piece of equipment for a designated amount of time each day. When adaptive equipment is needed, physical and/or occupational therapists are key members of the educational team. The therapist(s) can help teachers determine meaningful ways to incorporate adaptive equipment into ongoing classroom activities.

Assistive Technology

Assistive technology refers to a large range of devices that can be acquired commercially or custom-built to increase or maintain capabilities of students with disabilities. Assistive technology devices can be low tech or high tech. Assistive technology devices include computers, communication devices, switches, mobility and positioning aids, adapted toys, and eating systems. Although it is beyond the scope of this book to discuss assistive technology devices in detail, I will highlight a few—computers, switches, and communication devices—that can be particularly helpful in inclusive education. (References cited in the bibliography discuss assistive technology devices and services in greater detail.)

> **Assistive technology devices can be used to teach new skills, to offset skills never developed or lost due to the particular disability, and to provide for increased independence in a wide variety of activities.**
>
> **—Weber & Demchak (1996)**

Computers, computer software (e.g., interactive instructional programs, educational games), peripheral devices (e.g., adapted joysticks, enlarged keyboards, touch screens), and switches can be especially beneficial aids to (a) teach new material through practice and tutorials, (b) teach problem-solving skills, (c) assist in structuring free time through the use of educational games, (d) provide a means of communicating, and (e) increase motivation to complete various activities. Interactive software can be particularly useful because it can be adjusted to student need, skill level, and acquisition rate. Computer use for all students, with and without disabilities, can be especially motivating as well as conducive to peers working together.

Switches, whether purchased or homemade, can be helpful to students who have trouble isolating physical movements. Switches (e.g., membrane switches, lever switches, mercury switches, disc switches), used alone or with environmental control units, can increase participation in activities that involve battery-operated or electric items (e.g., tape players, appliances, toys). Switches can also aid in communication. For example, a student with a severe disability can use a loop tape activated by a switch to greet a teacher on arrival to class.

Augmentative and alternative communication (AAC) devices are also advantageous to students with severe disabilities who have limited verbal communication skills. AAC devices can range from those that involve simple technology (e.g., calendar boxes, picture schedules, communication notebooks, loop tapes) to those that are far more complex (i.e., electronic communication devices). AAC devices increase the student's capability to communicate with peers and adults in the setting.

It is important that any assistive technology device be appropriate for the student's chronological age and skill level. Assistive devices should be individualized based on student need; what is relevant for one student may not be for another. You'll need to conduct an assessment to determine the most appropriate device; on the educational team include someone knowledgeable about assistive technology (e.g., assistive technology specialist, occupational therapist). Assistive technology can help students with severe disabilities participate in various classroom activities as independently as possible.

Multilevel Teaching

Another means of adapting classroom activities targets different goals and objectives for specific students within a specific curricular domain. In

this multilevel curriculum planning, all students are striving to achieve objectives, although at different levels, within the same curricular or academic area. It is not unusual for teachers to provide multilevel instruction in any classroom. Elementary teachers frequently have students working at various levels in reading and mathematics. Involving a student with severe disabilities may mean including another level of instruction within the content area.

To determine the level of instruction needed for a student with severe disabilities, you might complete classroom participation plans, using the following process, summarized in Table 6: (a) Identify the overall goal of the lesson for the class (e.g., improve math skills); (b) write a brief description of the class activity (e.g., each group will solve a story problem); (c) determine how the student with severe disabilities will participate in the class activity (e.g., Carl will count out the manipulatives needed to assist the group in solving the problem); (d) identify the critical skills targeted for the student for severe disabilities in this activity (e.g., 1:1 correspondence, counting); (e) identify any adaptations that are needed for the student with severe disabilities to participate in the activity (e.g., a copy of the story problem with the numbers highlighted in yellow). A sample classroom participation plan using multilevel curriculum planning is shown in Table 7.

Table 6

Steps for Completing a Classroom Participation Plan

Step 1: Write the name of the class activity.

Step 2: Write a brief description of the class activity.

Step 3: Write how the target student will participate in the class activity.

Step 4: List the basic-skill objectives that the targeted student will have an opportunity to practice during the activity.

Step 5: List any materials needed to complete the activity.

For effective inclusion, developing participation plans for general-education activities and lessons is one of the most important planning activities.

— Gee, Alwell, Graham, & Goetz (1994)

This process allows the student to participate in the same lesson as her peers but to do so with both adapted materials and expectations regarding the level of academics to be acquired.

Curriculum Overlapping

In some cases it may be more appropriate to implement a curriculum overlapping process in which the goals and objectives of the targeted individual are different from those of the other students, though all are connected to the same group activity. The student with severe disabilities can work on skills that are embedded within the lesson; these embedded skills are likely to target communication, social, and/or motor skills.

Consider the following classroom participation plan that employs curriculum overlapping: The class activity focuses on multiplying fractions, the goal for the class being to calculate the answers correctly. The activity can be adapted for the student with severe disabilities; using a magnetic wand, she can pick up metal objects to

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Table 7

Sample Classroom Participation Plan

Student: Carl

Class Activity: Communication skills—developing an interview to be completed as a group

Description of Class Activity: Each group will list specific questions to ask focusing on the selected topic.

How Carl **Will Participate in This Class Activity:**

Carl will use his communication device to specify potential topics for the interview. Carl will use an adapted switch to tape the interview questions and to play the questions for the class. He will respond to yes/no questions regarding the interview. Carl will be assisted by members of his cooperative group.

Targeted Skills:

1. Using augmentative communication device
2. Answering yes/no questions
3. Turn taking
4.
5.

Materials, Equipment Needed:

Carl's augmentative communication device, paper and pencil for the group, tape player, adapted switch

Table 8

Factors to Consider When Selecting Adaptations and Modifications

1. ❑ YES ❑ NO Can the student benefit from the activity in the most meaningful way without any adaptations or modifications?
   If YES, involve the student in the ongoing activity.
   If NO, go to question 2.

2. ❑ YES ❑ NO Can other objectives specifically targeted for the student be incorporated into the activity?
   If YES, go to question 3.
   If NO, consider whether or not the activity can be revised to target meaningful objectives for the targeted student.

3. ❑ YES ❑ NO Can the targeted objectives be incorporated into the activity in a practical and nonstigmatizing manner?
   If YES, incorporate the objectives.
   If NO, consider changing the objectives or the activity.

4. ❑ YES ❑ NO Can the same teaching methods used with the other students be appropriately used for the student with severe disabilities (either for the same or modified objectives)?
   If YES, implement the teaching procedures.
   IF NO, go to question 5.

5. ❑ YES ❑ NO Can other teaching strategies be incorporated into the activity in a practical and nonstigmatizing manner (either for the same or modified objectives)?
   If YES, implement the alternate teaching strategies.
   IF NO, consider another activity or other objectives.

6. ❑ YES ❑ NO Can the student with severe disabilities provide a response in the same manner (e.g., writing, verbalizing) as the other students (either for the same or modified objectives)?
   If YES, implement the activity as specified for the targeted student with the expectation that all students will respond similarly.
   If NO, go to question 7.

7. ❑ YES ❑ NO Can other response modes be incorporated into the activity in a practical and nonstigmatizing manner?
   If YES, implement the activity as adapted, allowing for the specified response for the targeted student.
   If NO, consider another activity, other objectives, or other response modes.

8. ❑ YES ❑ NO Will the adaptation permit the student to participate in the activity in a meaningful and active manner?
   If YES, implement the activity as specified for the targeted student.
   If NO, consider another activity, other objectives, other response modes, or other adaptations.

Table 9

Self-Check: Teaching IEP Objectives Within a Typical-Classroom Schedule

❑ YES ❑ NO 1. Was an instructional matrix completed, identifying when IEP objectives can be addressed within the classroom schedule?

❑ YES ❑ NO 2. Were specific adaptations (including needed supports) and modifications identified (e.g., through classroom participation plans)?

❑ YES ❑ NO 3. Did you review suggested adaptations (including supports) and modifications to ensure that they were nonstigmatizing and allowed for maximum, active participation in classroom activities?

OUTCOMES:

1. Everyone on the student's team, including parents, is aware of when in the classroom schedule IEP objectives will be taught, either directly or incidentally.
2. Specific nonstigmatizing adaptations (including supports) and modifications are determined.
3. Adaptations and modifications that facilitate maximum active and meaningful participation are specified.

determine the numerator and denominator for some of the multiplication problems completed by her group. In this instance, the student's instruction focuses on objectives from curricular areas (e.g., motor skills) other than the curricular domain of her classmates (i.e., math). The plan can also delineate specific needed materials, individualized cues and guidelines, and the particular IEP objectives to be addressed within the activity.

As can be seen from the above example, the targeted student can be included in the ongoing classroom activity and can learn objectives from other instructional domains. Refer to Table 6 to review the steps in completing classroom participation plans. One caution regarding curriculum overlapping: Different objectives for the target student can lead to the isolation of that student within the classroom.

Summary

Whether using individualized adaptations, a multilevel curriculum planning process, and/or curriculum overlapping, teachers should consider several factors when reviewing potential adaptations or modifications. Remember that adaptations or modifications should be nonstigmatizing and practical to implement. Also note that adaptations should be made only when necessary. That is, avoid adapting more than is educationally necessary. You don't want to remove all challenge. All students should be educationally challenged, including those with severe disabilities. Table 8 provides factors to consider when

reviewing potential adaptations and modifications for implementation.

Self-Check

Based on the student's IEP, you have, at this point, completed an instructional matrix to identify when in the classroom schedule the IEP objectives could be addressed. As a team, you have delineated some of the supports and adaptations needed to facilitate the student's success in the general-education classroom. Additionally, you have reviewed the suggested adaptations and modifications to ensure that they are nonstigmatizing and facilitate maximum participation. Table 9 summarizes these steps and the desired outcomes.

CHAPTER THREE

Teaching Students With Severe Disabilities in Typical Classrooms

Some approaches to instruction are more conducive than others to accommodating students with diverse learning needs.

In general-education settings a variety of instructional groupings, such as large-group instruction, small-group instruction, and peer partnering, are used with all students. Some of these approaches to instruction are more conducive than others to accommodating students with diverse learning needs. In this chapter I will discuss each of these approaches to instruction and their application to inclusion of students with severe disabilities. I also will discuss individualized instruction in general-education classes.

Large-Group Instruction

Many teachers follow a traditional approach in which the entire class is taught the same lesson. The lesson typically begins with the teacher lecturing or leading a class-wide discussion on a particular topic. The class is then given independent work intended to reinforce the concepts covered in the lesson. In this approach students typically work alone on an assignment without any interaction with other students.

Though not impossible, this format provides the most formidable obstacles to successful inclusion of students with severe disabilities. Actually, adaptations to this format will no doubt be needed for any learner with diverse learning needs, not just for those with severe disabilities.

Although the ideal might be to change the general educator's teaching style, that option is not always realistic. Nor is it always possible to avoid teachers who rely on large-group lectures followed by seat work. So it becomes necessary for the special educator to determine ways to include the student with severe disabilities in such a lesson.

In some cases the strategies that follow in this chapter could easily be incorporated into a large-group lesson (e.g., students could complete the reinforcing work with a peer partner). Additional modifications may also need to be made to make that time meaningful for students with disabilities. For example, the student may listen to a tape, using earphones, that provides information on the same topic or from the same content area as the teacher's lecture. This modification might be beneficial for students who have difficulty attending to a long lecture. Other adaptations can be determined through classroom participation plans.

An alternative may be for the special-education teacher to volunteer to team teach with the general-education teacher. This strategy would provide an opportunity for the special-education teacher to model alternative teaching strategies such as those discussed below.

Small-Group Instruction

General-education teachers frequently engage in small-group instruction. Using this teaching method, teachers divide the class into groups based on any number of variables such as interests, instructional content, learning styles, ability; or group arrangements can be random. A group of students might be assigned to work together to complete a single project, or cooperative learning groups might work together regularly. Small-group instruction of any format generally makes inclusion of students with severe disabilities easier than does large-group instruction. Not all small groups engender cooperative learning. But cooperative learning groups are particularly conducive to inclusion of students with various learning needs.

Cooperative Learning Groups

Cooperative learning is designed to teach students to work collaboratively to reach a common goal. Within a cooperative learning group, students are responsible for their own learning and the learning of the other group members. There are five essential elements of cooperative learning: (a) small-group format; working on common goals; (b) positive interdependence; (c) individual accountability and responsibility; (d) use of interpersonal and small-group skills; and (e) group processing.

First, in cooperative learning, students work in small groups that are structured to promote face-to-face interactions and discussion among group members. The group of two to six students will work toward a common academic or content-based goal and toward a social goal (e.g., encouraging one another). For example, a class that is studying the Civil War may be divided into small groups to research factors precipitating the war. The academic or content-based goal relates to causes of the Civil War while a goal pertaining to group interactions could be one of many targeted social skills.

Second, students understand their positive interdependence; the group members of the group perceive that each member can attain the goal only if other members also attain the goal. This means that each student has the responsibility of learning the assigned material and assuring that other group members also learn the material. Positive interdependence is comprised of (a) positive goal interdependence (i.e., members working to achieve a common purpose), (b) positive incentive interdependence (i.e., members

achieving the same reward when the group achieves the goal), (c) positive resource interdependence (i.e., each member having only a portion of the materials, information, etc., so all must share), and (d) positive role interdependence (i.e., each member being assigned a role such that all roles are interconnected).

The third essential element of cooperative learning groups calls for individual accountability and responsibility. Each group member knows that he or she is expected to achieve the common goal and to contribute his or her fair share to the group process. Various methods can be used to ensure that each student has learned the material. Each student can be given a test at the end of the lesson, or students from various groups can be asked randomly to discuss the group's work with the teacher or the class. The teacher can also observe each group to note the frequency with which each member contributes to the process. Within groups a "checker" role can be assigned; this person is responsible for assuring that each group member can accurately explain the group's answer.

The fourth element involves collaborative social skills. It cannot be assumed that all students possess these interpersonal and small-group skills. Therefore, this element may require teaching the students to communicate accurately with one another, to provide feedback, to resolve conflict, and so forth.

The final element, group processing, calls for the group to reflect on a session to identify what group actions were helpful and what actions were unhelpful. The group then makes decisions about which actions should be continued and which should be changed. The teacher can provide structure to this activity by suggesting that each group identify "two actions that you did well and one action that can be improved." This element requires time at the end of each lesson for the groups to discuss and "debrief."

Designing a Cooperative Learning Lesson

A teacher must first determine the academic and social skills objectives for the lesson. To facilitate the inclusion of students with severe disabilities, a teacher might incorporate multilevel objectives within a cooperative learning lesson. So while the majority of the students in the group might be learning about the factors leading to the Civil War, the student with severe disabilities may be in the group to improve targeted social and communication skills (e.g., making choices, taking turns). After deciding the objectives for the lesson, the teacher ascertains the most appropriate group size, typically two to six students, and assigns the students to heterogeneous groups. The group needs to sit in an arrangement (e.g., circles or clusters) that allows the members easily to share materials and have the face-to-face interactions essential to cooperative learning.

To facilitate positive interdependence, a teacher plans to distribute lesson materials so that group members must share. For example, each member gets only part of the necessary materials, making it necessary to share to complete the lesson. To further promote positive interdependence, each member should be assigned a unique role. Roles might include (a) a reader who reads the assignment to the group, (b) a recorder who writes the group's answer, (c) a checker who ensures that each member can accurately explain the group's answer, (d) an encourager who fosters involvement of all group members, (e) an evaluator who collects information regarding participation of all group members, and (f) a summarizer who reports the group's answer. The roles assigned depend on the nature of the task and the size of each group. Additional or alternate roles can be assigned depending on the lesson (e.g., illustrator).

As you teach the lesson, explain the academic and social objectives for the lesson and the criteria for achieving the objectives. Make it clear that these are group goals and that everyone in the group is responsible for helping all members attain the objectives. Remind group members that there are requirements for individual accountability and responsibility. And monitor student performance in the groups and provide feedback as needed. End the lesson with a time for the group to evaluate their outcome(s) (did they attain the objectives?) and the group's processing (what did they do well and what should change?).

Adapting a Cooperative Learning Lesson

The emphasis on hands-on learning and the active involvement expected of all students makes cooperative learning lessons especially beneficial for students with severe disabilities. The stimulation provided by active involvement can enhance the student's motivation to attend to and to maintain interest in the activity. The interpersonal aspect of cooperative groups provides the student many natural opportunities to practice social and communication skills.

Cooperative learning lessons can be adapted in a variety of ways to facilitate inclusion of students with severe disabilities. We've already mentioned the use of multilevel objectives. That's just one among many of the adaptation strategies discussed in chapter 2 that can be incorporated within cooperative learning lessons. Students can be responsible for learning different amounts of material (have different criteria specified for achievement of the group's objectives). The special-education teacher or a paraprofessional might assist the general-education teacher in monitoring cooperative learning groups. If extra assistance is needed by a group with a student with a severe disability, any one of the adults present could provide assistance.

Serving as peer tutors to students with severe disabilities in cooperative groups did *not* negatively impact the achievement of academic objectives of the typically developing student peers.

–Hunt, Staub, Alwell, & Goetz (1994)

Peer Partners

Peer partners can take many forms, from informal peer buddy programs to formal peer tutoring programs where peers are taught to provide intensive one-on-one instruction. Peer buddy programs tend to be informal, with a student volunteering to assist another student as needed, to eat lunch together, to spend recess time together, to move between classes together, and so forth. In peer tutoring programs the relationship between students tends to be more formalized with students serving as instructors of other students. Peer tutoring programs can involve same-age or cross-age peers and can be organized within one classroom, across classrooms, or across an entire school.

Peer tutors are frequently more effective than adults, because they often use age-appropriate language and examples. Additionally, having recently learned the material they are tutoring, they are more familiar with the frustrations and problems that the tutee may experience.

Peer tutoring programs are beneficial in that tutored students receive more individualized instruction and attention than otherwise might be possible. Benefits for both the tutors and tutees include increased self-esteem and acquisition of communication and social interaction skills. Tutees improve performance in areas targeted for instruction while the tutors reinforce mastery of

Teachers report that involving peer tutors with students with severe disabilities encourages equity and consideration of others and helps the students with severe disabilities to learn to their potential.

—Salisbury, Gallucci, Palombaro, & Peck (1995)

the material and improve their thinking skills. Perhaps most important, peers enjoy cooperating with another and are actively involved in establishing a positive and accepting classroom environment.

Several steps should be followed when establishing any peer tutoring program. First, the classroom teacher should select students to be peer tutors. Selecting tutors can be a formal process of recruiting peers from within the class or from other classes. This recruiting can be done through giving class presentations, talking to teachers, distributing flyers to other classes, and so forth. However, it also can be as simple as asking one student to be a peer tutor for another student in a particular skill area. Remember that all students should have an opportunity to take turns at being a tutor as well as a tutee. Students with special needs, even severe disabilities, can act as effective peer tutors for other students. For example, a fifth-grade student who is moderately mentally retarded might teach a first grader learning sight words. Students with severe disabilities who receive help must have the opportunity to give help to others.

Peer tutors should receive training in the instructional methods. For example, the tutors need to be taught how to give directions, how to praise, how to provide feedback, and how to monitor the lesson. Some tutors may also need training in communication and social skills.

Teachers should supervise the tutorial sessions on a regular basis. This supervision can occur daily, weekly, twice a month, or as infrequently as monthly. This supervision provides feedback to the tutors regarding their effectiveness in teaching and the appropriateness of their social and communication skills.

Finally, ongoing evaluation is important to the peer tutoring program. The teacher uses the information obtained from supervising the tutoring sessions to make any needed changes in teaching methodology, interpersonal interactions, or frequency of teacher observations and evaluations. Evaluation can have a formative (i.e., using ongoing information to change continuing tutoring) and/or a summative (i.e., using data to rate final progress of the tutee) purpose.

Individualized Teaching Strategies

Individualized teaching strategies are based on a particular student's needs or learning style and permit a student to progress at his or her own rate. Some general-education strategies easily lend themselves to individualized instruction. For example, a writer's workshop strategy allows students of varying abilities to work at their level and to have their particular needs addressed as they work.

There appears to be a misconception by many general-education and special-education teachers that individualized strategies used with students with severe disabilities are significantly different from those strategies used with typical students. In many cases the dissimilarity is in the terminology more than in the strategies themselves.

Additionally, some educators will argue that individualized teaching strategies are not appropriate to the general-education setting in that they are stigmatizing or appropriate only to one-on-

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one teaching. But virtually all typical students do require individualized teaching at times. Furthermore, individualized instruction does not always mean individual (or 1:1) instruction and can frequently be provided within small-group activities or through peer partner learning. (It is important to remember that all students may at times require individualized instruction provided in 1:1 format. However, this arrangement should be the exception rather than the rule.)

An impressive array of individualized instructional strategies has been developed for students with severe disabilities. Even so, there can be a real challenge in providing beneficial individualized instruction for students with severe disabilities while the students remain meaningfully involved in classroom activities. In this section of the chapter I will discuss strategies that can be logistically implemented within the general-education classroom without unnecessarily stigmatizing the student with severe disabilities. Prior to this discussion, we will look at the instructional process in general.

The Instructional Process

Remember that all students, even those without disability labels, benefit from systematic instruction. That is, all students benefit from receiving instruction through a systematic rather than a trial-and-error approach. Teachers typically teach a targeted area (e.g., reading, writing, spelling, mathematics) by breaking down the specific skill and teaching it in a structured manner through a variety of activities.

For example, a teacher instructing students to complete long division problems would likely first provide an explanation of the process accompanied by a demonstration. Ultimately, the goal is to have the student respond correctly (i.e., solve the problem) when the student sees such a math problem. When the student is still in the acquisition stage of learning, the teacher will likely provide a variety of prompts to assist the student. Prompts are those extra cues that help to teach the student the desired response. Eventually, the teacher wants the student to respond as independently and correctly as possible to "natural cues" that are presented to signal a particular behavior (e.g., 252/24 = _____ is a cue for completing long division). When the student sees this cue, the student responds in a particular manner.

Similarly, teachers want students with severe disabilities to respond to natural cues and have that behavior maintained by natural consequences. For example, when the bell rings for recess, the teacher dismisses the class and other children get their coats. These events should be the natural cue for the target student also to get her coat and put it on. This behavior should be reinforced by the natural consequence of being warm when she goes outside to play.

Initially any student is likely to need some instructional assistance to increase the probability that the response will be correct and to ensure that the student does not learn errors as part of the process. The student response, correct or incorrect, is then followed by some immediate or delayed consequence (e.g., the teacher tells the student through immediate feedback or grading that the responses were correct or incorrect).

Such a systematic way of providing instruction is equally important for students with severe disabilities. Teachers provide instructional prompts along with the natural cues to increase the probability that the student will respond to the natural cues.

Instructional prompts include verbal instructions, written instructions, gestures or pointing, another person modeling the desired response, written models (e.g., a completed long division problem), pictures, and varying degrees of

physical assistance (e.g., a tap or subtle touch, partial physical assistance, full physical assistance).

Similarly, various types of feedback can be provided depending upon the "correctness" of the response (e.g., praise for a correct response or corrective feedback for an incorrect response).

Although these additional prompts and consequences will be needed initially, these extra instructional cues should be removed and any artificial consequences (i.e., instructional reinforcers and corrective feedback) be replaced with natural consequences. It is also important to remember that these instructional prompts and consequences are individualized; what is effective for one student may not be for another.

Using Instructional Prompts to Teach

Table 10 outlines important factors to remember when using instructional prompts with any student, whether disabled or nondisabled. Following these guidelines can ensure that your prompts will be appropriate in the general-education classroom. No matter how appropriate they are, instructional prompts should eventually be removed to facilitate the student's independence.

Removing or "fading" extra instructional prompts is a gradual process in which the student moves from responding correctly to the natural cue in the presence of instructional cues to responding to only the natural cue. Students typically learn more effectively and efficiently

The use of specific prompt procedures not only increases students' skills, but also enhances independent performance of the targeted skills.

—Hall, McClannahan, & Krantz (1995)

Table 10

Guidelines to Consider When Using Instructional Prompts

1. View instructional prompts as temporary.
2. Be sure the student is attending before you provide instructional prompts to increase the student's effectiveness.
3. Use prompts that are as natural as possible.
4. Use prompts that focus the student's attention on natural cues.
5. Use prompts natural to the setting and activity.
6. Use prompts that are not stigmatizing.
7. Use prompts that are appropriate for the student's chronological age.
8. Provide the minimum amount of assistance needed to facilitate the student's response.
9. Give enough time after the instructional prompt to allow the student to focus on the natural cues and to initiate a response.
10. Follow these guidelines when using verbal prompts:
    a. Use easy-to-understand language appropriate to the student's age.
    b. Use language that is appropriate to the activity.
    c. Give verbal prompts slowly.
    d. Provide the prompt as a directive and *not* as a question.
    e. Provide the verbal prompt only once and then follow up with a different type of prompt.

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when prompts are removed systematically rather than haphazardly.

There are any number of ways to remove instructional prompts in a systematic manner. Because of logistics or the stigma associated with a particular prompt-fading procedure, some methods are more appropriate to inclusive settings than others. Three specific approaches to fading instructional approaches will be discussed here: (a) increasing assistance, (b) decreasing assistance, and (c) time delay (progressive and constant). Each of these prompt-fading methods has been researched in general-education settings; in some cases peers can effectively use the approaches.

Increasing Assistance

Using an increasing-assistance approach, known by numerous other names (e.g., system of least prompts, least-to-most-intrusive prompts, least intrusive prompts), a teacher provides prompts in a sequence starting with what is assumed to be the least intrusive prompt and progressing, only if necessary, to the most intrusive. (The most intrusive prompt should be that which guarantees the desired student response, as individually determined for each student and activity.)

Using an increasing-assistance approach, your first prompt provides the student with the least amount of assistance; this allows the student to be as independent as possible; you progress to greater degrees of assistance only if necessary to facilitate the student's desired response. A frequently used least-to-most hierarchy is a verbal prompt to a modeling prompt to some degree of physical assistance.

When using increasing assistance, you must first give the student an opportunity to respond to the natural cues. If the student does not respond, you proceed to the first prompt in the hierarchy and again wait for a brief time (e.g., 3-5 sec) to give the student an opportunity to respond. If the student responds correctly, there is no need to provide further prompts for that step; provide a brief latency for the student to initiate a response for the next step. If the student does not respond or responds incorrectly, you provide the next prompt in the hierarchy and wait for a response. If the student responds correctly to the second prompt, allow the student to move on to the next step. If the student does not respond or responds incorrectly to the second prompt, provide the last prompt in your hierarchy, which should guarantee appropriate student response. Then move on to the next step in the activity and repeat the process as necessary.

Within an increasing-assistance strategy, prompts are "self-faded." That is, the student's behavior dictates when prompts are faded. At any point within the hierarchy, if the student responds as desired, all other prompts for that step are withheld.

Although a sequence of a verbal prompt to a model to physical assistance is very common, it is not the only viable hierarchy. Table 11 provides a few of the examples of sequences that could be used within an increasing-assistance hierarchy. Again, any prompts selected for use with students with severe disabilities should be used as naturally as possible and should be nonstigmatizing.

Although general-education teachers might not use the phrase *increasing assistance* or any of the other names by which the procedure is known, they may well use similar procedures in their classrooms.

For example, a teacher might use an increasing-assistance hierarchy to help a student complete an addition problem of two digits plus two digits (e.g., 25 + 34 = _____). The natural cue is for the student to see the problem. If the student does not respond, the teacher might ask, "What do you do first?" (an indirect verbal

Table 11

Sample Sequences of Prompts Within an Increasing-Assistance Hierarchy

Verbal —> Model —> Minimal Physical Assistance

Indirect Verbal —> Direct Verbal —> Model

Indirect Verbal —> Direct Verbal —> Gesture —> Model

Verbal —> Gesture —> Minimal Physical Assistance

Gesture —> Model —> Minimal Physical Assistance

Verbal —> Gesture —> Model

prompt). If the student still does not respond, the teacher might say, "Add these two numbers first," and simultaneously point to the 5 and 4 (a direct verbal prompt paired with a gesture). If the student still does not respond or responds incorrectly, the teacher might say, "Five plus four equals nine; write the number here," and point to the space. The teacher would then repeat this hierarchy for the next step (adding the 2 and 3). Many general-education teachers use an increasing-assistance hierarchy to teach a wide variety of skills in various subject areas (e.g., spelling, word attack skills, math skills).

Similarly, an increasing-assistance hierarchy can be used to teach a variety of skills to a student with severe disabilities who is placed in a general-education setting. Teachers, paraprofessionals, peers, or others (e.g., parent volunteers) can be taught to implement an increasing-assistance prompt hierarchy.

In the example of a student being asked to activate a switch to play her cooperative group's prerecorded answer, the hierarchy might be implemented as follows: The teacher asks for the group's answer. If the student does not independently activate the switch to this natural cue, a peer within the group might provide the prompting. The first prompt might be a verbal cue, "Anna, push the switch to play our answer." If Anna does not respond or responds in some other way (e.g., touches the tape player), the peer might repeat the verbal cue while tapping the switch to draw Anna's attention to an essential component of the natural cue (i.e., the switch). If Anna still does not respond, the third prompt might be to repeat the verbal prompt and pair it with a slight nudge at the elbow (i.e., minimal physical guidance to assist Anna in beginning to move her hand toward the switch). If at any point in this sequence, Anna were to initiate the desired response, the peer would not use any of the later prompts in the hierarchy.

Decreasing Assistance

Decreasing assistance, also known as most-to-least-intrusive prompts, can also be used to help any student learn new skills. Decreasing assistance begins with the most intrusive prompt needed for the individual to respond and moves through a specified hierarchy to less intrusive levels of assistance. A frequent sequence of decreasing prompts is from some type of physical assistance to a model to a verbal prompt. As with

increasing assistance, numerous sequences of prompts can be used (see Table 12).

It may not seem quite as easy to fade, or remove, the prompts within a decreasing-assistance hierarchy as it is within an increasing-assistance hierarchy. Recommendations for removing the prompts typically specify the number of teaching trials at a particular prompt level and specify provisions for the occurrence of errors. For example, guidelines for fading prompts within a decreasing-assistance hierarchy might read as follows:

> Provide five trials at the first level and then move to the next, less intrusive prompt. However, if the student makes an error at that second level, return to the more intrusive level for one trial. Continue in this manner until the student performs five consecutive trials at the second level without error and then move to the next lesser intrusive prompt. Continue in the same fashion.

Because the process of fading prompts within a decreasing-assistance hierarchy can be difficult, teachers who implement the strategy often remove prompts in a more subjective manner than that outlined above. The resulting procedure only approximates a true decreasing-assistance hierarchy. A teacher might continue to provide an unnecessary amount of assistance or the teacher might move too quickly to a lesser prompt. Acknowledging this, I suggest that teachers be somewhat systematic, but not unnecessarily rigid, in the manner in which prompts are removed within this method. Specify a certain number of teaching opportunities at each prompt level and then monitor progress.

A general-education teacher might implement a decreasing-assistance prompt hierarchy as seen in this example: The teacher is still having students solve addition of two-digit numbers (e.g., 56 + 12 = _____). The teacher is about to provide some extra assistance to a student, who typically needs some one-on-one instruction on new concepts and becomes upset with difficult work on which he might make a high rate of errors. Rather than initially providing minimal assistance as she would with increasing assistance, the teacher decides to provide the maximum assistance needed to ensure that the student

Table 12

Sample Sequences of Prompts Within a Decreasing-Assistance Hierarchy

Minimal Physical Assistance —> Model —> Verbal
Model —> Direct Verbal —> Indirect Verbal
Model —> Gesture —> Direct Verbal
Model —> Gesture —> Direct Verbal —> Indirect Verbal
Minimal Physical Assistance —> Gesture —> Verbal
Minimal Physical Assistance —> Model —> Gesture
Model —> Gesture —> Verbal

will experience immediate success.

When the teacher sits down to work with Jacob, she provides the maximum amount of assistance needed (e.g., "First you add the 6 and the 2 and write the number here," while pointing to the location). She assists Jacob in completing the first three problems in this manner and then moves to a lesser amount of assistance for the next problem, fully prepared to return to the maximum assistance if Jacob makes an error. So on problem 4, Ms. Shoemaker says, "Show me the two numbers you will add first." When Jacob shows her and writes the correct answer, she completes this and two additional problems with Jacob in this format. Finally, she moves to a less intrusive prompt for the third group of three problems (e.g., an indirect verbal prompt such as, "What do you do first?"). Again, Ms. Shoemaker was prepared to return to the previous prompt level if Jacob experienced difficulty at this final level of assistance.

Decreasing assistance can also be used to teach students with severe disabilities. Reasons similar to those in the above example might influence a decision to make decreasing assistance the prompt-fading method of choice. For example, a student who is likely to struggle with a new task and who does not respond well to making errors or facing a difficult task may respond better to a decreasing-assistance hierarchy than to an increasing-assistance hierarchy.

If the situation warranted, decreasing assistance, rather than increasing assistance, could have been used to teach Anna to activate the tape-recorder switch. The natural cues would remain the same and a peer could still implement the procedure. The same types of prompts could be used, but in a different sequence. If Anna did not respond to the natural cues, a peer would prompt Anna with a slight nudge at the elbow paired with the verbal cue, "Anna, push the switch to play our answer." With decreasing assistance, this level of prompt would be used for several opportunities to activate the switch throughout the day.

After the specified number of trials at this level, the teacher would instruct the peer(s) to move to the next, less intrusive prompt (e.g., the verbal cue paired with tapping the switch). Again, practice would be distributed throughout the day. After Anna participated in the specified number of teaching opportunities, the peers would be instructed to move to the final prompt level (i.e., verbal cue only). Ultimately even this cue should not be needed, and Anna should respond appropriately to only the natural cues.

Time Delay

Time delay differs from increasing assistance and decreasing assistance in that the type of prompt does *not* change as student performance improves. Rather, more time is allowed to lapse between the natural cue and the prompt. Two approaches can be used to lengthen the time interval: *progressive* time delay and *constant* time delay. Both types of time delay start with prompts given at 0-second delay. That is, immediately following the natural cue, the teacher or peer tutor immediately provides the instructional prompt that guarantees an appropriate response from the student (i.e., the controlling prompt). A

Typically developing second graders can be taught to implement a decreasing-assistance hierarchy to teach peers with severe disabilities motor and communication skills within the context of cooperative activities that target academics.

—Hunt, Staub, Alwell, & Goetz (1994)

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predetermined number of instructional opportunities prompted at 0-second delay allow the student to practice the correct response without having to guess what is expected; they prevent the student from inadvertently practicing errors. After the predetermined number of 0-second teaching trials, which can be distributed throughout the day within meaningful activities, the amount of time between the cue and the prompt is lengthened in one of two ways.

With constant time delay, all subsequent teaching opportunities, until the student reaches the specified criterion, occur at a predetermined prompt-delay interval. That is, following the natural cue, the teacher or tutor would wait the specified number of seconds before providing the controlling prompt (i.e., the instructional prompt that ensures the student will respond correctly). The length of delay is determined somewhat arbitrarily and can vary from only 2 or 3 seconds to as long as 8 seconds. A constant delay interval of 4 or 5 seconds is frequently used. With constant time delay, the prompt is faded by giving the student time to respond independently.

To encourage this independent responding, different consequences are usually provided, depending on whether the student responded before or after the prompt. That is, the student receives a more desirable reinforcer when he gives the desired response prior to the prompt.

Constant time delay is demonstrated in the following example, in which Rob is being taught to read sight words. To provide Rob with some practice of the targeted words, the teacher writes each word on a flash card. The teacher predetermines that the first five trials would be at 0-second delay. Subsequently, the constant time delay interval would be 4 seconds.

Ms. Black shows Rob each flash card as she models the correct response (i.e., reads the word printed on the card). When Rob imitates her and reads the word after her, he receives verbal praise. After completing the five trials in which she uses 0-second delay, Ms. Black then moves to the 4-second delay interval and provides any remaining prompts at this delay interval until Rob masters all the targeted sight words. During these teaching trials, Ms. Black shows Rob a flash card and then silently counts to herself (e.g., "one thousand one, one thousand two, one thousand three...").

If Rob does not respond during this delay interval, Ms. Black then models reading the word aloud and praises Rob when he imitates her. If Rob responds correctly before the delay interval ends, Ms. Black provides Rob with a point, allowing him to keep score and beat his score from the day before, a reinforcer that is particularly motivating for Rob. Ms. Black also trains several peers who take turns working with Rob on his sight words during reading class.

As previously stated, progressive time delay also begins with a predetermined number of trials provided at 0-second delay, giving the student the opportunity to practice the correct response without errors. But then the time interval between the natural cue (e.g., the flash card) and the controlling prompt (e.g., the teacher modeling the correct reading of the word) is gradually

Second- and fourth-grade peers were taught to implement all aspects of constant time delay (i.e., attending cues, the delay interval, differential consequences) effectively to teach students with mental retardation expressive word naming and recognition of correct spellings.

—Wolery, Werts, Snyder, & Caldwell (1994)

lengthened. The interval is lengthened incrementally (e.g., 2 sec, 4 sec, 6 sec, 8 sec; a maximum delay interval is typically about 8 sec). Modifying the sight word example above, Rob could be taught the targeted sight words through progressive time delay. Ms. Black decides gradually to increase the delay to 8 seconds by increments of 2 seconds. Thus, after five trials at 0 seconds, she provides a predetermined number of trials (e.g., five) at the 2-second delay.

Again, she shows the flash card, counts silently to herself, and demonstrates reading the word when Rob does not read the word during the delay. After five trials at this level, Ms. Black moves to the 4-second delay interval and implements the teaching in a similar manner. She continues in this way until she delays 8 seconds and then remains at this delay interval until Rob reaches the specified criterion. As with constant delay, Ms. Black provides different consequences for correct responses prior to the prompt than for correct responses that follow the prompt.

Time delay is another instructional procedure that most general-education teachers approximate even though they might not use the term. That is, teachers frequently gradually increase the amount of time between a natural cue and the provision of assistance. For example, foreign language teachers may give the correct response as they point to the object and/or after giving the equivalent English word or phrase (e.g., the teacher says, "Good day, guten tag"). Progressive time delay and constant time delay allow teachers to increase the length of time in a more systematic fashion. Both progressive and constant time delay can be used to teach a wide variety of skills or tasks (e.g., reading words, basic mathematics facts, communication responses, social skill responses, following instructions, daily living skills) to students with and without severe disabilities.

Summary of Using Instructional Prompts

Regardless of the type of prompts used and the method used to fade the prompts, it is essential that the teacher remember that the prompts should be appropriate to the task and activity and should not be stigmatizing for the student. Additionally, the prompt procedure selected is individualized based on the task to be learned and individual characteristics.

Providing Reinforcers and Corrective Feedback

In addition to considering how to use instructional prompts, a teacher must also consider how he will respond to the student's responses. What reinforcers will follow correct responses and what consequences will follow incorrect responses? Just as prompt procedures are individualized, the feedback provided to the student is individualized according to the activity and student characteristics. For example, reinforcers are selected based on student preference.

By providing reinforcers following correct behaviors, a teacher increases the probability that those desired behaviors will occur in the future. It is important to provide reinforcers contingent upon the performance of targeted behaviors. Table 13 summarizes guidelines important to the effective use of reinforcers with any student.

Providing corrective feedback when the student makes an error or performs the targeted behavior inaccurately also enhances the instructional process. Corrective feedback makes learning new skills more efficient. And if corrective feedback is not provided, you risk having the student learn an error as part of the task. As with reinforcement, corrective feedback should be provided immediately (at least initially) and consistently and should be provided contingent

Table 13

Guidelines for Effective Use of Reinforcers

1. Reinforcers are defined by their effect on the targeted behavior; by definition, only those consequences that actually increase the occurrence of the behavior are reinforcers.
2. Reinforcers are idiosyncratic. What is effective for one student may not be for another.
3. Potential reinforcers can be identified through a variety of means (e.g., observation, student or significant other(s) interviews, reinforcer menus).
4. Reinforcers should be appropriate for the student's chronological age.
5. Because reinforcer preferences may change over time (even within one day), reinforcer variation can be important.
6. To be most effective, reinforcers should initially be provided immediately following completion of a targeted behavior. Delayed reinforcement can occur in later stages of learning.
7. At the onset of instruction, reinforcers should be provided frequently (i.e., contingent upon most, if not all, instances of the targeted behavior).
8. In later stages of instruction, reinforcers should be given less frequently.

upon performance (i.e., an error). Corrective feedback should also be appropriate to the age of the student and should be nonstigmatizing. Sample methods for providing corrective feedback are listed in Table 14.

In summary, individualized teaching strategies are comprised of selecting prompts, reinforcers, and corrective feedback that are specific to a particular student and activity. Using individualized teaching strategies increases the likelihood that instruction will be effective.

Documenting Student Progress

After instructional programs are implemented, it is essential that student progress be monitored regularly. Are all objectives being taught frequently? What progress is the student making? A

Table 14

Sample Methods for Corrective Feedback

1. Corrective feedback is integral to an increasing-assistance prompting strategy. If an error is made, the next (more intrusive) prompt is provided.
2. Corrective feedback can be incorporated into progressive-and constant time delay by telling the student, "Wait if you don't know, and I'll help you," and then providing extra assistance.
3. Interrupt an error and give the student a chance to self-correct.
4. A student can be told that he or she made a mistake and can be asked to try again (e.g., "That's not right; try again").

responsible professional assesses student gain toward achievement of IEP objectives at least weekly. It is also beneficial for teachers to evaluate student outcomes linked to other standards. Table 15 provides questions that can be used to evaluate student outcomes broader than progress on IEP objectives.

Assigning Grades

Assigning grades is one means of documenting student progress. Assigning grades to any student can be controversial. Assigning grades to students with severe disabilities who are included in general-education classes can be difficult when curriculum modifications are significant.

Any grading method should be ascertained by the student's educational team. All parties involved should agree to the purpose of the grade and should understand that grades are to be assigned with modifications in place. In essence, a grading agreement is developed and implemented.

On what does one base grades for students with severe disabilities who are not attaining content objectives in the same manner or at the same rate as their classmates? One option is to assess knowledge through alternate methods (e.g., oral tests, demonstrations of responses, portfolios, exhibitions, journals). Similarly, the teacher can target different instructional goals within the curriculum and base grading on the student's progress toward those alternate goals.

Another grading method is to use effort as a key criterion. Letter grades can also be based on the acquisition of new skills targeted in the IEP. In some cases a letter grade could be an average of content learned, effort displayed, and acquisition of IEP objectives.

Many report cards allow for a notation that grades were assigned using alternate criteria (e.g., modifications, effort).

Table 15

Evaluating Student Outcomes

1. ❑ YES ❑ NO
   Were meaningful objectives targeted within the IEP that will lead to increased participation in and control over daily routines?
2. ❑ YES ❑ NO
   Can it be documented that the student is achieving the objectives specified in the IEP?
3. ❑ YES ❑ NO
   Are all teachers and professionals directly involved with the student's educational program satisfied with the progress the student is making?
4. ❑ YES ❑ NO
   Are the student's parents satisfied with the progress the student is making toward achievement of the IEP objectives?
5. ❑ YES ❑ NO
   Do other students in the classroom interact with the student in meaningful ways throughout the day?
6. ❑ YES ❑ NO
   Does the student have meaningful relationships and/or friendships within the classroom?
7. ❑ YES ❑ NO
   Does the student participate in classroom activities in meaningful ways?
8. ❑ YES ❑ NO
   Does the student use acquired skills on a regular basis?
9. ❑ YES ❑ NO
   Has the student generalized acquired skills to new settings or situations?

Data-Based Documentation of Student Progress

Unfortunately, simply assigning grades to students with severe disabilities based on effort, their performance on IEP objectives, and so forth, does not always provide useful information. Data-based documentation of student progress allows for easier communication among professionals and with parents. Data demonstrating student progress also allow everyone to see even small changes in student behavior. Most important, documentation of student progress allows a teacher to make predictions about the student's future performance and determine whether modifications to instruction are needed. Any grading method should be ascertained by the student's educational team. All parties involved should agree to the purpose of the grade and should understand that grades are to be assigned with modifications in place. In essence, a grading agreement is developed and implemented.

Citing time constraints, some teachers question the value of gathering data on student progress. But teachers should take stock: Is it important to take a few minutes each day to record data on student performance? Or is it all right to waste valuable instructional time implementing instruction that is ineffective?

Discussion of methods for collecting and evaluating data on student performance is beyond the scope of this publication. I refer readers to a previous issue of *Innovations*: *Making the Most of Student Performance Data* by Leslie Farlow and Martha Snell, which provides comprehensive information regarding student performance data.

Putting It All Together

All of the above information (i.e., using instructional prompts, providing reinforcers, employing corrective feedback, and documenting student progress) must be incorporated into an easy-to-follow format, similar to a lesson plan. But this instructional plan would cover several weeks (or even longer depending on student progress) rather than for a day or two, as is the case for lesson plans typically developed by general-education teachers. Incorporating the information discussed in this chapter into an instructional plan follows a specific format.

First, the teacher determines which of the student's IEP objectives will be taught through an individualized instructional plan involving the components discussed above. Each instructional plan will specify the instructional domain, the specific objective, the natural cue(s), the instructional prompting procedure, the reinforcers, the corrective feedback procedures, and potential teaching opportunities. A sample completed instructional plan is shown in Table 16.

The self-check in Table 17 will be helpful as you pull all of this information together for implementation. First, select those IEP objectives that will benefit from an individualized instructional plan. Second, identify the natural cue and select instructional prompts and a specific method of fading those prompts. Third, identify the instructional reinforcers and corrective feedback to follow the student's behavior. Finally, identify natural opportunities within the general-education classroom schedule to implement the instructional plan.

You can incorporate this information in an instructional matrix as shown in Figure 1. Consider the "telling time to the hour" objective. Jake's instructional plan notes six natural opportunities within a school day for this to be taught in a systematic manner. Another objective, following a class schedule, can be addressed each time class activities change. Following the above guidelines will result in the development of an effective plan that will lead to more efficient learning for the student.

Table 16

Sample Completed Instructional Plan

Domain: Communication

Objective: Rob will participate in leisure activities by pressing a Big Red switch with his right fist to turn on tape recorded music for circle time and group activities in 9 out of 10 opportunities.

Natural Cue: All children are gathered in the circle area of the kindergarten classroom and the teacher say, "Let's sing _____."

Instructional Prompts: Constant Time Delay

1. Verbal prompt ("Press the button" paired with a minimal physical prompt at the elbow to start the movement.
2. Provide the first five trials at 0-second delay.
3. Provide all subsequent trials at a 3-second delay (the approximate amount of time until the teacher actually starts having the class sing).

Reinforcement: When Rob presses the button after the prompt, discreetly provide verbal praise and gently rub his shoulder.

Corrective Feedback: If Rob makes an error prior to the prompt, provide the prompt as specified above to facilitate the correct response. If Rob makes an error after the prompt, discreetly ask him to try again and tap the switch to draw his attention to it.

Natural Teaching Opportunities:

1. Large-group morning circle
2. Small-group activities
3. Center activities
4. Large-group closing circle

Data Collection: On the data sheet record "+" if Rob independently and correctly pressed the switch prior to the prompt. Record "–" if Rob made an error or responded after the prompt.

Table 17

Self-Check: Developing an Instructional Plan

❑ YES ❑ NO 1. Did you identify the objectives from the student's IEP that require an individualized instructional plan?

❑ YES ❑ NO 2. Did you identify the natural cue to which you want the student eventually to respond independently?

❑ YES ❑ NO 3. Based on a targeted objective, did you identify instructional prompts appropriate for the activity, the student's age, and the student's instructional level?

❑ YES ❑ NO 4. Did you select a method of fading the instructional prompts appropriate to the student and the activity?

❑ YES ❑ NO 5. Did you select instructional prompts and a fading approach that is nonstigmatizing?

❑ YES ❑ NO 6. Did you identify appropriate reinforcers for the activity based on the student's age and preferences? Are the reinforcers nonstigmatizing?

❑ YES ❑ NO 7. Did you specify corrective feedback procedures appropriate for the prompting procedure and activity that are also age-appropriate and nonstigmatizing?

❑ YES ❑ NO 8. Did you delineate the natural opportunities within the general-education classroom schedule in which the instructional plan can be implemented within the context of ongoing meaningful activities?

❑ YES ❑ NO 9. Did you identify the method for documenting student progress?

OUTCOMES:

1. An effective instructional plan that can be implemented by teachers and paraprofessionals will be developed.
2. The instructional plan will lead to more efficient learning by the student.
3. An instructional plan will be in place that involves nonstigmatizing procedures appropriate to the general-education classroom setting.

CHAPTER FOUR
Case Study

As a result of the systematic planning and collaboration, Jake's placement in the general-education class was successful.

This case study focuses on Jake, whom you met briefly at the beginning of this book. Jake is a 9-year-old third grader. He likes to play with his friends, to draw and paint, to listen to music on headphones, and to play with Lego building blocks. Like any third grader, he loves recess; he likes to play on the swings and slide. Jake has difficulty returning to class following recess. Jake is identified as being moderately mentally retarded and as having Down syndrome. His verbal communication skills are limited and he is difficult to understand. Jake also has a seizure disorder that is only partially controlled by medication.

Jake previously attended a school where one special-education teacher had been quietly working to have all of her students with severe disabilities gradually included to greater degrees in general-education settings. At each student's IEP meeting she was sure to address the student's individual needs. She carefully wrote the IEP objectives in a manner that would encourage placement in the general-education classroom. Recently this teacher, Ms. Smith, was instrumental in organizing a school-wide inclusion task force of representatives from special education, general education, the parent-teacher organization, administration, and paraprofessionals.

Near the end of Jake's second-grade year, an IEP meeting was held to develop a new IEP and to determine Jake's placement for third grade. This meeting was attended by Ms. Smith, Jake, Jake's mother, the teacher of the second-grade class in which Jake was included for some activities, and

the school principal. (A third-grade teacher did not attend this meeting, because there were four third-grade classes in the school and class assignments were not made until the summer.)

As facilitator Ms. Smith organized the meeting as follows: She first reviewed Jake's current IEP and discussed his progress on the objectives listed; she then reviewed his present performance levels in reading, mathematics, communication, and social skills. Based on this information, the IEP team worked to develop Jake's new long-term goals and short-term objectives. In an abbreviated format, these are Jake's new IEP objectives:

1. Line up with classmates to return to the third-grade classroom following recess.
2. Take turns with nondisabled peers.
3. Complete classroom jobs with nondisabled peer partner.
4. Write name on class assignments.
5. Identify initial sounds of words.
6. Read specified sight words.
7. Read numbers 1 through 30.
8. Rote count 1 through 30.
9. Tell time to the hour.
10. Follow general-education classroom schedule.

After developing these objectives, the IEP team discussed what special-education and related services were needed and identified the least restrictive environment in which these educational needs could be addressed. Although Jake had not been fully included in the second-grade classroom, his second-grade teacher strongly advocated for Jake's full inclusion in the third-grade classroom due to his success with the partial inclusion. Jake's mother was also supportive of this proposed placement. When Jake was asked what he liked about school, he enthusiastically talked about his friends in his second-grade class.

As Ms. Smith discussed the supports and adaptations that could be provided to facilitate Jake's success in third grade, the principal also agreed with this placement. (It should be noted that a partial inclusion placement is not a prerequisite to full inclusion, though such a progression is commonplace.)

General supports that Ms. Smith discussed at the IEP meeting involved collaboration with the third-grade teacher: Ms. Smith acting as a consultant, team teaching, and the two teachers simultaneously monitoring or teaching cooperative learning groups. Ms. Smith also suggested that the paraprofessional assigned to her could offer assistance to the third-grade teacher. In addition to this paid support, Ms. Smith suggested that she would help train the third graders to act as peer tutors and to facilitate general interactions with Jake. Ms. Smith also agreed to train parent volunteers. Finally, Ms. Smith indicated that she would collaborate with the third-grade teacher to develop and implement instructional matrices and classroom participation plans.

In late July Jake was assigned to Ms. Green's third-grade class. Because Ms. Green was not involved in the IEP meeting, it was essential that she meet Jake and his mother and review the IEP objectives before the start of school. Ms. Smith arranged for Jake and his mother to come to the school on one of the teacher work days in late August. During these work days Ms. Smith also spent time with Ms. Green, planning for Jake's successful inclusion. Ms. Smith shared a portfolio, developed with input from Jake, about his likes and dislikes, his favorite school activities, and his friends. Ms. Smith wanted Ms. Green to see Jake as a boy with a specific personality rather than just as a boy with disabilities. The portfolio also included the abbreviated list of Jake's IEP objectives.

Table 18

Sample Classroom Participation Plan for Jake

Student: Jake

Class Activity: Social Studies/Current Events—link current events to regions being studied, geography, history, citizenship, interests and beliefs of others.

Description of Class Activity: Each student selects any current event article, writes a brief summary, and mounts it on notepaper. Each student presents the information orally to the class.

How Jake **Will Participate in This Class Activity:**

Jake's parents will send in family news on Wednesdays. Jake will dictate two or three sentences regarding family news. Staff or peer tutor will prepare sentence strips. Jake will practice reading sentence strips to staff or peer tutors. Peer tutor will help Jake in his presentation to the class.

Targeted Skills:

1. Taking turns with nondisabled peers
2. Writing his name on class assignments
3. Identifying initial sounds of words
4. Read specified sight words
5.

Materials, Equipment Needed:

Tagboard and scissors for sentence strips, weekly note from parents.

At the first meeting Ms. Green and Ms. Smith reviewed the proposed third-grade daily schedule and Jake's IEP objectives to determine when the activities could be incorporated into the ongoing classroom routines. They collaboratively completed the instructional matrix shown in Figure 1. Before the first day of school, they also completed classroom participation plans for the first week of school. These plans clarified how Jake could be meaningfully involved in specific activities. Ms. Smith reviewed proposed adaptations with Ms. Green to ensure that all were appropriate to the classroom setting and Jake's age and that all allowed Jake to participate as fully as possible in the activity. They also confirmed that all proposed adaptations were nonstigmatizing. Ms. Smith and Ms. Green used the questions in Table 8 to assist them with this process. A sample classroom participation plan for Jake is shown in Table 18.

Ms. Smith also wanted to be sure that Jake was taught some IEP objectives systematically, not only through incidental exposure. The objectives selected for individualized instructional plans, including selected prompt fading procedures, are identified in Table 19.

Within each instructional plan, Ms. Smith specified the IEP objective, the natural cues, the instructional prompts including implementation and fading strategies, selected reinforcers, and corrective feedback. Ms. Smith also listed numerous opportunities throughout the daily schedule when the skills could be addressed (see Figure 1). Finally, she developed forms for documenting Jake's progress on each of these objectives so that she could objectively evaluate his performance.

For now, the additional objectives in Jake's IEP were going to be addressed through the typical classroom procedures used with all third graders. Ms. Smith planned to monitor Jake's performance related to these objectives. If documentation deemed it necessary, Ms. Smith would address these objectives through individualized instructional plans.

At the request of Jake's mother, quarterly review meetings were incorporated into Jake's IEP. She requested that Ms. Smith, Ms. Green, and the principal meet with her and Jake to review Jake's progress in the third-grade classroom. At these meetings Ms. Smith reviewed the documen-

Table 19

Individualized Teaching Procedures Used to Teach Jake

	IEP Objective	Prompting Procedure
1.	Read specified sight words.	Constant time delay
2.	Read numbers 1 through 30.	Constant time delay
3.	Follow classroom schedule.	Increasing assistance
4.	Tell time to the hour.	Increasing assistance
5.	Write his name.	Increasing assistance

tation of Jake's progress and asked everyone to evaluate other indicators of Jake's success in the third-grade class. To assist with this process, the team asked questions such as those in Table 15.

As a result of the systematic planning and collaboration, Jake's placement in the general-education class was successful. Although his teachers had to modify his individualized instructional plans as the year progressed, Jake made progress on each of his IEP objectives. In the spring when it was time to develop the new IEP for the next school year, Jake's IEP team unanimously recommended that Jake's placement be full inclusion in the fourth-grade classroom.

CHAPTER FIVE
Conclusion

General-education teachers are often more receptive to having students with severe disabilities in the classroom when the teachers are aware of the supports and adaptations available to facilitate success.

Including students with severe disabilities in general-education settings is increasingly recommended as a "best educational practice." Yet it is important to ensure that the student's educational needs are indeed being met in the inclusive setting. It is insufficient to view physical placement in the classroom as the desired outcome. Students with severe disabilities must be full and active members of inclusive classrooms, and they must be achieving their IEP objectives.

General-education teachers are often more receptive to having students with severe disabilities in the classroom when the teachers are aware of the supports and adaptations available to facilitate success. Similarly, special-education teachers are more receptive when they understand how their roles will change and know what is expected of them in this new service-delivery model. Professionals from these two groups must collaborate if inclusive education is to be successful. The strategies in this book provide concrete ways in which general- and special-education teachers can work together to implement successful inclusive education.

This book also provides concrete suggestions to ensure that the educational needs of the student with severe disabilities are being met. That is, the student must receive systematic, direct instruction targeting IEP objectives. Although the special-education teacher is the one likely to bring this knowledge to the student's educational team, it is information that is easily transferred to other teachers, paraprofessionals, or peers. Implementing these procedures increases the likelihood that inclusive education will be successful for students with severe disabilities.

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